

# Unit Planning Guide: Grade K Unit 2 of 4

Unit Title: <b>Counting and Cardinality</b>	Pacing ( <i>Duration of Unit</i> ): <b>10 Weeks</b>
Grade: <b>Kindergarten</b>	Buffer Day(s):

## Desired Results

### Transfer Goals

*Students will be able to independently use their learning to:*

- MP.1 **Make sense of problems and persevere in solving them.**
- MP.2 Reason abstractly and quantitatively.
- MP.3 Construct viable arguments and critique the reasoning of others.
- MP.4 Model with mathematics.
- MP.5 **Use appropriate tools strategically.**
- MP.6 **Attend to precision.**
- MP.7 Look for and make use of structure.
- MP.8 **Look for and express regularity in repeated reasoning.**

### Established Goals (2011 MA Curriculum Frameworks Standards Incorporating the Common Core State Standards)

#### Prerequisite Standards:

- **PK.CC.MA.1:** Listen to and say the names of numbers in meaningful contexts.
- **PK.CC.MA.2:** Recognize and name written numerals 0–10.
- **PK.CC.MA.3:** Understand the relationships between numerals and quantities up to ten.
- **PK.CC.MA.4:** Count many kinds of concrete objects and actions up to ten, using one-to-one correspondence, and accurately count as many as seven things in a scattered configuration.
- **PK.CC.MA.5:** Use comparative language, such as more/less than, equal to, to compare and describe collections of objects.

#### Standards (*Priority Standards in bold*):

- **K.CC.5-** Count to answer "How many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number 1-20, count out that many objects.
- **K.CC.6-** Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.
- **K.CC.4a-** When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

#### WIDA for English Language Learners

Standard 1: ELLs **communicate** for **Social** and **Instructional** purposes within the school setting

Standard 3: ELLs **communicate** information, ideas and concepts necessary for academic success in the content area of **Mathematics**

In the lesson planning stage, teachers will need to differentiate lessons for ELLs. In order to accomplish this they will need: 1.) this curriculum map, 2.) a list of their ELLs and their proficiency levels, and 3.) appropriate language function expectations and scaffolds or supports.

- **K.CC.1-** Count to 100 by ones **and tens**
- **K.CC.2- Count forward beginning from a given number within the known sequence (instead of beginning at one).**
- K.CC.3- Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
- K.CC.4b- Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
- K.CC.4c- Understand that each successive number name refers to a quantity that is one larger. Count to answer “How many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.
- K.CC.7- Compare two numbers between 1 and 10 presented as written numerals.

**Meaning** (\*Mostly assessed through Performance Tasks/Assessments)

**Big Ideas:** *(Statements and concepts written in teacher friendly language which reflects the important [but not obvious] generalizations we want students to be able to arrive at. These are used by the teacher to focus daily instruction.)*

- You can count in multiple ways to reach 100.
- A number represents a quantity and these quantities can be compared.
- Counting has a predetermined rule and sequence.

**Essential Questions:** *(Questions which frame ongoing and important inquiries about the big ideas. They are written for students and used in daily instruction to help engage students in meaningful thinking.)*

- Why is size important?
- Why is it helpful to know how to count in different ways?

**Acquisition** (\*Mostly assessed through traditional summative assessments)

**Knowledge:** Key basic concepts, facts, and key terms (written in phrases) students should be able to recall independently.

*Students will know ...*

- The meaning of greater than, less than, and equal to.
- Number names in standard order.
- In counting that objects are only counted once.
- There are patterns in counting.
- Number sequence

**Vocabulary:**

Greater than (>), less than (<), equal to (=)

**Skills:** The discrete skills and process students should be able to use independently (*Bloom's Level of Learning should be noted in parentheses.*)

*Students will be skilled at:*

- Counting objects up to 20 (working towards 100) (remembering)
- Comparing two objects to see which has more or less of (Analyzing)
- Skip counting by tens to 100 (working on ones to 100) (Remembering)
- Counting forward without beginning at one (Remembering)
- Writing numerals up to 10 (working towards 20) (Remembering)

**Resource Suggestions:**

The Napping House, Audrey Wood

Illustrative Mathematics Task: <http://www.illustrativemathematics.org/illustrations/1149>